PROCEEDINGS OF LEARNED SOCIETIES.

ZOOLOGICAL SOCIETY.

Nov. 8, 1859.—John Gould, Esq., V.P., in the Chair.

DESCRIPTION OF A NEW SPECIES OF ANOLIS FROM CENTRAL AMERICA. BY DR. A. GÜNTHER, FOREIGN MEMB. ZOOL. SOC.

The following new species of *Anolis* was discovered by M. Sallé in Central America, and is now in the Collection of the British Museum.

ANOLIS SALLÆI, n. sp.

Diagnosis.—Snout moderately elongate and rather depressed, with the canthus rostralis sharp, and with a pair of obtuse ridges, arising from the bony superciliary margins and divergent anteriorly; a slight groove between these two ridges; the upper surface of the head is covered with small shields; occipital shield present. Loreal region slightly concave, with four series of small shields. Scales of the back, belly, and tail distinct, imbricate, strongly keeled; those of the sides very small; no trace of a crest; tail rounded, not verticillated; gular pouch small. Greyish or brownish, with a more or less distinct yellowish vertebral band; sides and belly sometimes with fine blackish longitudinal lines.

Description.—The snout is moderately depressed and slightly elongate, the distance between the anterior angles of the orbits being a little less only than that between the orbit and the extremity of the snout. The canthus rostralis is distinct and, near the orbit, rather sharp. There is another pair of low ridges, arising from the bony superciliary margin and divergent anteriorly, with a slight groove between; they extend to the middle of the length of the snout. The shields of the upper surface of the head are small, arranged in irregular transverse series, about seven in the series between the angles of the orbit; the shields along the bony superciliary margin are rather larger, but both series are separated from each other by smaller shields. An occipital shield is distinct. The nostril opens laterally, and is situated immediately behind the extremity of the snout. The labial shields are exceedingly narrow, eight or ten in number; three or four series of smaller shields run parallel to that of the lower labials, the remainder of the throat being covered with very small polygonal scales. The pouch of the throat is very little developed. The tympanum is very small. The temple and the neck are granular.

No crest whatever is visible, but the scales of the back are very distinct, imbricate, keeled; those of the sides are one-half smaller and smooth; those of the belly rhombic and distinctly keeled, rather larger than the dorsal ones. The tail is rounded, not verticillated or crested, covered with rhombic, imbricate, strongly keeled scales, the keels forming longitudinal ridges. The fore-leg does not reach to the loin, if laid backwards; it is covered with rhombic keeled

scales, and with minute smooth ones inferiorly ; the fingers are slightly dilated ; the fourth is very little longer than the third, then follow the fifth, the second, and the first. The hind-leg reaches beyond the tympanum, if laid forwards ; it is covered with keeled scales, except the inferior and posterior sides of the femur, which are granular.

The ground-colour of the upper parts is greyish or brownish, darkest along the margins of the vertebral band ; a broad yellowish or yellow dorsal band reaches from the occipital shield to the tail, where it is gradually lost. The lower parts are whitish. In one of the two specimens, the sides, the belly, and the lower part of the tail are marked with longitudinal blackish lines.

	in.	lin.
Distance between the tympanum and the extremity of the snout	0	$5\frac{2}{3}$
Distance between the tympanum and the vent	1	4
Length of the tail	4	0
Distance between the extremity of the snout and the anterior margin of the orbit	0	$2\frac{2}{3}$
Distance between the anterior angles of the orbit	0	$2\frac{1}{3}$
Length of the fore leg	0	8
——— of the hind leg	1	3

Description of a New Species of Entozoon, Sclerostoma sipunculiforme, from the Intestines of the Elephant. By W. Baird, M.D., F.L.S.

Very few opportunities, apparently, have occurred to helminthologists of examining the bodies of Elephants. In Diesing's enumeration of Entozoa found in the Mammalia, only one species is mentioned by him as having been observed and described as a parasite of this Pachyderm. This is an *Ascaris*, first mentioned by the celebrated Rudolphi as infesting the liver. The same parasitic worm has since then been found in the biliary ducts of a young Indian Elephant in America by Dr. Jackson of Boston. In his mention of this *Ascaris* (*Ascaris lonchoptera*, Diesing), Dr. Jackson states that it occurred along with numerous specimens of a *Distoma*, which he refers to the species *D. hepaticum*. The poor animal from which these worms were taken died of disease of the liver with ascites, and there was found also a large, deep, chronic ulcer in the stomach. The species here described will now make a third parasite recorded as belonging to the Elephant. I am indebted for it to Mr. Edward Gerard of the British Museum, who found it in the large intestines of a young Indian Elephant which recently died in London, after having been only a very short time in England. This animal, from Mr. Gerard's account of it, had suffered also from dropsy, as a large quantity of water escaped upon opening the abdomen.

Sclerostoma sipunculiforme, Baird.

Caput cylindricum, magnum, truncatum ; oris limbo interno denticulis densis, externo aculeis majoribus numerosis, armato.

Corpus rectum, utrinque attenuatum, sipunculiforme, bursa maris triloba, lobo intermedio producto, radiis septem (quorum quinque bifurcati sunt) instructo; lobis lateralibus radiis quatuor instructis; extremitate caudali feminæ oblique truncata, subulata, apertura genitali supra caudæ apicem.

Long. feminæ 10 lineæ, long. maris 1 uncia.

Hab. In intestinis crassis Elephantis indici.

Mus. Brit.

November 22, 1859.—Dr. Gray, F.R.S., V.P., in the Chair.

Description of MacAndrewia and Myliusia, two new forms of Sponges. By Dr. J. E. Gray, F.R.S., V.P.Z.S.

In 1841 Mr. Stutchbury described in our Proceedings a Sponge in the Museum at Bristol, brought from Barbadoes, which was peculiar for being entirely formed of agglutinate silicious spicula, forming a tough semitransparent glass-like spongy mass. By exchange I have obtained half the specimen of this most curious and interesting sponge, so that I have the means of comparing those I have described with the one then made known.

In July 1851 Mr. R. MacAndrew kindly presented to the British Museum a Coral from St. Michael's, one of the Azores, which then attracted my attention, but I put it aside in hopes that I might obtain a specimen of it in spirits, which would enable me to understand more completely its history and character. No other specimen having, however, come under my examination, the subject dropped out of my mind.

It was accidentally placed with the Stony Corals, and its hardness and resemblance to the genus *Gemmipora* are some excuse for this mistake. Some time ago Mr. Holdsworth, when studying the corals in the Museum, observed that it evidently did not belong to that group: and a very superficial inspection, indeed its mere lightness, was enough to show that such was the case.

I again placed it aside, thinking that I had seen a figure of the animal as an *Alcyonium* in Messrs. Quoy and Gaimard's 'Voyage,' and in Dana's 'Zoophytes,' and that I would study it when I had that family under my hands, or leave it for some other person to examine who might take up the group.

Having lately had occasion to consult Messrs. Quoy and Gaimard's work, and the essay of Mr. Dana, I became satisfied that the substance from the Azores could not be the *Alcyonium glaucum* or *Alcyonium latum* (Dana, Zooph. 623. t. 58. f. 6), which I had before thought from recollection might be the case; for these authors describe *A. glaucum* as soft and fleshy, and *A. latum* as "more rigid in its texture than *A. glaucum*." As Mr. MacAndrew's specimen is hard, inflexible, and brittle, though very light, this induced me to examine the specimen more carefully; and I then found that the supposed coral was a silicious sponge, covered below with a thin fleshy envelope without any apparent apertures, and above with a thicker fleshy coat, studded with large-sized, regularly-disposed, cir-

cular cells, which look like the cells of the Polypes in the two *Alcyonia* above referred to. The apertures are destitute of radiating laminæ ; they appear in their dry state to be subdivided into six or eight small circular tubes, and have all the appearance of being the cells of a pinnated-tentacled zoophyte. The small part of the lower surface of the spongy axis, which is exposed, is pierced with minute perforations, and the upper surface is furnished with groups of larger pores, which, as far as I can judge without injuring the specimen, are placed under the cells above described. There are grooves diverging from the small cylindrical perforations in one of the groups to the perforations in the other groups.

I have thought proper to call the genus after the gentleman who discovered it, and who has been very liberal in doing all in his power to extend our knowledge of zoology and geology, and has several times placed his yacht at the command of scientific men, to assist them in their researches.

The genus may be thus defined :—

MacAndrewia.

Cup-shaped, expanded, more or less sinuated or lobed, affixed by a more solid dilated base, covered with a fleshy bark, which is furnished with cells on the upper surface, supported by a very light porous silicious spongy cup-shaped axis, the upper surface of which is furnished with groups of small cylindrical pores placed in roses, and with grooves radiating between each group of pores ; the lower surface uniformly porous.

MacAndrewia azorica.

Hab. St. Michael's, Azores, 1851 (*Robert MacAndrew, Esq., F.R.S., &c.*).

This sponge? has so much the general appearance and habit of a zoophyte with pinnated tentacles like the *Alcyonium* to which I have referred above, that I am as yet by no means certain that it may not be the product of such animals ; but I have not been able to find any traces of the remains of them, and therefore must wait the arrival of some other specimen preserved in spirit to determine the fact. At the same time the bark is unlike that of any sponge that I am acquainted with, the existence of such a bark on any true sponge being as yet unknown to me. On the other hand, the existence of an axis of the spongy texture and the silicious compositions found in this marine body are novelties in the order of zoophytes in which its general appearance would lead one to place it. But that is no reason why it may not prove to be a zoophyte, as the same may be said to be the case with regard to the genus *Hyalonema*, the axis of which is so anomalous that several of the French zoologists—Valenciennes, Milne-Edwards, and others—considered the bark of it as a parasite on some unknown substance, overlooking the fact that the bark is strengthened by fibres exactly like those of which the axis is composed. Such an idea would require a belief in the

existence of two bodies always found together, and unknown in any other form, instead of their being regarded as parts of the same animal.

The axis of this body has many characters in common with the body which is called a Sponge described by Mr. Stutchbury in our Proceedings for 1841, p. 87, as mentioned above, under the name of *Dactylocalyx pumiceus*, and which has been more lately described under another name by M. Valenciennes; a very fine specimen of this is in my collection; but in this sponge it is the outer surface which is marked "with deep sinuosities radiating from the root to the outer circumference."

We have lately received from Dr. William MacGee of Belfast a very curious specimen of a silicious sponge?, which is also allied to the *Dactylocalyx* and *MacAndrewia*, but so distinct in its form and structure that I am inclined to regard it as the type of a new genus, which may be called

Myliusia.

Sponge? silicious, funnel-shaped, fixed by the base; the upper surface smooth, marked with numerous minute perforations placed in nearly parallel grooves radiating from the centre to the circumference, and with numerous large, oblong, rather unequal-sized perforations, which are fringed on the lower side with a high wall of a similar structure to the rest of the sponge; these edges of the cavities causing the under surface to be covered with unequal irregular shaped tubes of nearly the same length, and more or less confluent together: some of these tubes are simple and subcylindrical, others are expanded and more or less crumpled on the edge around the cavity, so as to end in two, three, or even four, more or less circular mouths.

Myliusia callocyathes.

Hab. West Indies (*Dr. MacGee*).

Dr. Bowerbank informs me that the silicious spicula of this sponge are very different from those of *Dactylocalyx pumiceus*. As he is working on that subject, I leave the peculiarities for him to describe; but I should not be in the least surprised if the genera *MacAndrewia*, *Myliusia*, and *Dactylocalyx* should all prove to be a peculiar family of zoophytes rather than sponges. If these bodies are sponges, they will form a family in that group, which may be named *MacAndrewiadæ*, characterized by the peculiar form and structure of the axis, the distinctness of the bark, and the position of the oscules or cells.

The structure of the base of *Dactylocalyx* and of the spicula which are found in the interspaces of the network are figured by Mr. Quekett in his 'Lectures on Histology.'

I have named this genus after Christlob Mylius, who first described the curious zoophyte since called *Umbellularia grœnlandica*; and I think that any one who reads his simple and plain account of the animal in his letter to Haller, and the account of the same

animal given by John Ellis in his work on Corallines, will be satisfied that the latter was not very liberal in his praise towards his contemporary. There might have been reasons why he did not mention the name of Mylius, but I cannot conceive why those of Collinson and Dunze should have been omitted.

On two new Birds from the Rio Napo. By Philip Lutley Sclater, M.A.

Buarremon castaneiceps.

Saturate oleagineus, subtus vix dilutior : remigibus et rectricibus nigricanti-fuscis : pileo castaneo, lateribus capitis cum gula nigricanti-cinereis : rostri nigricanti-plumbei basi pallida ; pedibus nigris.

Long. tota 6·5, alæ 3·1, caudæ 2·6.

But one example of this *Buarremon* was in the collection. It may be arranged next to *B. rufinuchus* and *B. latinuchus*, from which, however, it is easily distinguished by its general deep olive colouring.

Grallaria nuchalis.

Saturate brunnescenti-oleaginea, pileo rufescentiore, nucha et regione post-oculari clare castaneis : subtus nigricanti-schistacea : rostro et pedibus nigris.

Long. tota 7·5, alæ 4·5, caudæ 2·1, rostri a rictu 1·2 ; tarsi 2·15.

This bird is a long-legged *Grallaria* in structure, though in plumage it rather resembles the different species of the allied genus *Formicarius*. I have never seen but this one example, now in my collection.

Remarks on the Habits of a Herring Gull (Larus argentatus). By A. D. Bartlett.

In calling attention to the singular and remarkable habits of a bird of this species, permit me to give an extract from the 'Garden Guide' of 1852, in order that the origin of this individual specimen may be perfectly known.

"In the beginning of June 1850, a Herring Gull (*Larus argentatus*) hatched out her young ones in the enclosure (No. 17), which is overshadowed by two weeping ash trees. The male bird had assisted her so constantly in incubation, that his strength gave way, and he died just as the young birds were chipping out of the shell. The female then became restless, left the eggs, and was only induced to resume her place for the few hours which were necessary to complete the hatch by the keeper having arranged the dead body of her mate in counterfeit presentment of the position he generally took up near her when not himself upon the eggs."—*Extract from 'Garden Guide,'* 1852

It will, I hope, be understood that the birds so hatched in 1850 were the parents of the individual whose habits I now wish to record.

This bird was one of two hatched about the latter end of May 1857, and was reared by its parents in the gardens, where it remained during the summer and autumn of that year. At the commencement of the winter he was in the habit of flying about (not having been pinioned), and occasionally staying away a *day* or *two*, then *for a week or more*, returning again generally about feeding-time, and alighting among the other gulls and feeding with them. This continued till the end of March 1858, at which time he disappeared. Nothing more was seen or heard of him until the middle of November 1858, when, to the delight and astonishment of all who knew him, he returned one afternoon at the usual time. *Meeting the keeper with the box of food, he followed him* to the enclosure where he was hatched, and settling down among the other gulls, took his dinner as though he had never been away, not appearing the *least shy or wild*. Here he remained with his parents and the other gulls, occasionally flying off for a *day* or *two*, until the beginning of February 1859.

He again departed and by many was given up for lost; others, however, thought he might again return. And on the morning of *Saturday last, between eight and nine o'clock*, we were gratified to behold the long-lost Gull making his way to his old quarters much improved in his appearance, having nearly completed his adult plumage. He immediately came down and was greeted by his old friends, who evidently recognized him. He *appeared fatigued and hungry*: I sent for some food, and he came boldly towards us, and fed almost from the hand. As soon as his appetite was satisfied, he walked about, quite at home among the other gulls. Since Saturday I have seen him flying now and then over the Gardens and Park, but returning after a short flight.

In conclusion, I beg to say I am indebted to one of the Society's most careful and very intelligent keepers (B. Misselbrook) for some of the facts which have enabled me to bring before you these very interesting particulars.

On the most efficient Means of preserving the Eggs of Birds in order that they may be afterwards hatched. By A. D. Bartlett.

I believe there are but few persons who are quite satisfied by seeing and examining the dried skins and feathers of birds.

The great desire, therefore, to see, or to possess, in a living state, these wonderful and generally beautiful creatures, has led me to consider the possibility of preserving their eggs for a sufficiently long period to allow of their being brought from distant places and afterwards hatched. We might thus be able to obtain some of the more delicate species, and many perhaps that a long sea voyage would prevent our obtaining by any other means.

The mere keeping fresh and sweet the eggs of birds has been accomplished in many ways: for instance, they will keep for a long period imbedded in lime and water, or in fat or salt; but by these means the vitality is destroyed. It appears to me, therefore, to be essentially necessary, not only to prevent evaporation, but also to

keep the texture and surface of the shell in its pure and perfect condition. To accomplish this object the eggs must be newly laid, or nearly so, and the following is the best method of preserving them.

Obtain the gut of any animal whose intestine is large enough to admit the egg intended to be preserved, and, having carefully cleaned the gut and rendered it free from fat, dry it as much as possible in powdered chalk or other earthy matter. Pass the egg into the gut, tying it close to the shell at both ends of the egg, and hang it up in a *cool, dry place* until it is quite dry. Two, three, or more eggs can be tied in the same gut like a string of beads, or they can be tied separately. When thoroughly dry, they may be packed up in a box with oats, wheat, or any *other dry grain or seeds*, until the box is quite full. The object in having the box full is for the great convenience of turning the eggs. This is accomplished by turning the box bottom upwards, which should be done occasionally. Thus the whole of the eggs may be effectually turned with very little trouble. The eggs thus packed must be kept in a dry, cool place, and ought not to be taken out or unpacked before the means are at hand for hatching them. Upon wishing to place them under a hen, or otherwise, if the dry gut be cut with a sharp knife, it will peel off without in any way injuring the shell of the egg.

I was successful in hatching and rearing the young from some eggs kept three months in this manner, and I have no doubt that under favourable circumstances they may be kept for a longer period.

December 13th.—Dr. Gray, F.R.S., V.P., in the Chair.

Description of a New Species of Squirrel (Sciurus siamensis) from Siam, in the Collection of the British Museum. By Dr. J. E. Gray, F.R.S., V.P.Z.S.

Among the animals lately sent by M. Mouhot from Siam are two small Squirrels, which differ from any that we have hitherto received from India or the neighbouring countries.

I am aware that the Indian Squirrels, and indeed Squirrels generally, are very apt to vary; and probably many more species are described than exist in nature; but I do not know any species of which the one now described can with reason be considered as a variety; the two specimens in the Museum are very uniform in their general appearance.

It may be observed that some species, both of Mammalia and Birds, are so much alike in external appearance, that, judging from their skins alone, we might be inclined to doubt whether they were more than slight varieties; yet when their habits, modes of life, food, and manners are known, they are far more distinct, as species, than animals which are very different in their external appearance, and marked with what might *a priori* be considered very striking characters.

Sciurus siamensis, sp. nov.

Bright red-brown, grizzled with elongate black tips to the longer

hairs, each of which is marked with a broad subterminal yellow band. These black hairs are more abundant, and have broad pale rings on the rump outside of the thighs, and especially on the lower part of the tail, where they nearly hide the general red colour. The terminal half of the tail bright chestnut-brown, without any black hairs or pale rings. The throat, breast, belly, lower part of sides, inner side and edge of the legs, uniform bright red-brown. Ears rounded. Whiskers black. Feet covered with short close-pressed hairs.

Hab. Siam (*M. Mouhot*).

Description of a New Species of Freshwater Tortoise from Siam. By Dr. J. Edward Gray, F.R.S., V.P.Z.S.

The British Museum has received from M. Mouhot, with some other Reptiles, two specimens of a Freshwater Tortoise, which are decidedly different from any I have before seen. They have somewhat the external appearance, both in shape and markings of the head, of some specimens of *Cistudo amboinensis*, but belong to the genus *Emys*, or rather *Geoclemys*, and not to *Cistudo*.

They are referable to the first division of genus which has the back of the shell three-keeled, and, like the other species of that section, come from Asia.

Geoclemys macrocephala.

The shell oblong, rather depressed, entire, three-keeled, olive-brown; the keels subcontinued, nearly parallel, the middle one higher and more distinct behind; the lateral ones, near the upper edge of the shields, continued, ending abruptly on the hinder edge of the third lateral discal shield; the hinder lateral and central shield only marked with a slight convexity; the margin entire, yellow-edged. The under side yellow, with black triangular spots; the sternum flat, very indistinctly keeled on the side.

Animal blackish-olive. Head large; crown flat, covered with a single smooth plate, purplish-brown, with two streaks from middle of the nose, the upper edging the crown, the other the upper part of the beak, and with two streaks from the hinder edge of the orbit, the lower short and interrupted, extended on the temple, the upper broader and continued over the ear along the side of the neck; two close streaks under the nostrils to the middle of the upper jaw, and two broad streaks, dilated behind, down the front of the lower jaw, and continued on the edge of the lower jaw behind; the nape and hinder part of the side of the lower jaw covered with large flat scales; the rest of the neck and legs covered with minute granular scales; the front of the fore-legs covered with broad band-like scales; the toes of the fore- and hind-feet rather short and thick, covered above with broad band-like scales.

Hab. Siam.

The front vertebral plate is quadrangular, the front edge wider, rounded; second, third, and fourth ventral shields six-sided, the second longer than broad, the fourth broader than long; the three

hinder sides are longest, the fifth vertebral shield subquadrangular, the front sides being very narrrow, and the hinder side very broad and slightly truncated.

On two New Species of Cinclus.
By John Gould, F.R.S., etc.

I have the pleasure of bringing before the notice of the meeting two new species of *Cinclus*, for the knowledge of which science is indebted to the researches of Dr. A. Leith Adams, who collected them in Cashmere. The first of these, which is very nearly allied to our well-known *Cinclus aquaticus*, I propose to characterize as *C. cashmeriensis*; the other, which is more nearly allied to *C. Pallasi*, as *C. sordidus*.

The following are descriptions of these two birds:—

Cinclus cashmeriensis.

Crown of the head, ear-coverts, and mantle brown, passing into deeper brown on the upper part of the back and wing-coverts; lower part of the back and tail-coverts grey, with a darker central mark on each feather; tail blackish grey; wings the same colour as the tail; throat and breast white; upper part of the abdomen brown, passing into dark greyish-brown on the flanks and vent; under tail-coverts uniform dark grey; tarsi brown, lighter on the front and on the upper part of the toes.

Total length 7 inches; bill $\frac{7}{8}$; wing $3\frac{7}{8}$; tail $2\frac{1}{4}$; tarsi $1\frac{1}{8}$.

Hab. Cashmere.

Remark.—As compared with adult males of the *C. aquaticus*, this bird differs in being considerably larger in size, and in wanting the rich chestnut colouring of the upper part of the abdomen; the wings exceeding in length those of its European ally by more than half an inch.

Cinclus sordidus.

Crown of the head, back of the neck, throat, and chest chocolate-brown, the throat and breast being lighter than the back of the head; back, abdomen, and tail deep brownish-black, the abdomen somewhat the darkest; wings nearly the same colour as the back; tarsi brown, lighter on the front and on the upper part of the toes.

Total length $6\frac{1}{4}$ inches; bill $\frac{7}{8}$; wing $3\frac{1}{4}$; tail 2; tarsi $1\frac{1}{8}$.

Hab. Cashmere.

Remark.—If it were possible to conceive a cross between *C. aquaticus*, or *C. cashmeriensis*, and *C. Pallasi*, the produce would, I should say, be a bird like the one under consideration. I do not, however, believe that any such occurrence has taken place, but that the bird characterized as *C. sordidus* is a good species. In size it is smaller than *C. aquaticus*; at least the measurements of the only example I have seen induce me to believe so.